

# Aviation News

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**First Jet Take-off From Carrier:** *The McDonnell XFD-1 Phantom, the Navy's first all-jet plane, shown taking off from the flight deck of the carrier Franklin D. Roosevelt. The twin-jet Phantom is the first jet plane to take-off from and land on the deck of a U. S. carrier. See story on page 11. (U. S. Navy photo.)*

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# Honeywell has Wings

In this generation the world and Minneapolis-Honeywell too, acquired wings. A new frontier opened. To Honeywell it brought the challenge to extend in a new dimension its 61 years' experience in automatic control.

Before the war Honeywell was taking up this challenge. We saw where Minneapolis-Honeywell controls could serve in the Age of Flight, just as they brought comfort, safety and economy to the home and industry when all of us were still earth-bound.

Minneapolis-Honeywell Control systems have become established in the air. The needs of the Air Forces in wartime accelerated our research and development and advanced our Aeronautical programs by many years, over the pace it might have taken in its normal growth.

The business of Honeywell is automatic control. The air is not a new territory into which our efforts have expanded and in which our competence has been demonstrated.

The Honeywell Electronic Autopilot and Electronic Turbo-Supercharger Control are standard with the A & F where precision and reliability are demanded. These, together with the Honeywell Electronic Fuel Gauge and Temperature and Pressurization Control systems have also won acceptance in the transport field. Many more control systems are under development.

Aviation tomorrow will be even more dependent upon automatic control. That is a science Honeywell has pioneered since 1889. We welcome the challenge that aviation's need presents to the Honeywell organization. We like our stumps. They are a part of Honeywell and will be a continuing factor in its future.

*Harold W. Swartz*

HAROLD W. SWARTZ, President.

MINNEAPOLIS  
**Honeywell**  
AERONAUTICAL DIVISION

CREATIVE ENGINEERING

HEADQUARTERS OF THE HONEYWELL ELECTRONIC AUTOPILOT PLAN FOR FORTHCOMING GENERATIONS

## THE AVIATION NEWS

### Washington Observer

**RESEARCH ENTHUSIASM DIMS**—Time is dimming the wartime enthusiasm of the importance of research. Prospects of Congress underwriting a National Research Foundation before adjournment was blocked out when the House Insurance & Foreign Commerce Committee voted to pigeon-hole the Mills-Randolph bill. However, Senator Magnuson and Kilgore continue to exert pressure on the House committee to act on their bill, the Senate version of the Mills-Randolph proposal.

**BUYING GLIDERS FOR CRATES**—Interest is rising at great speed in War Assets Administration's proposal to sell over 1,000 Waco CG-4A cargo gliders which can never be certificated. The answer lies in the tremendous amount of high grade lumber in the boxes. Each glider, prepared for export shipment, is a five wood crates. Price per glider: \$75. Sales start Aug. 15 for priority purchasers. Public will be permitted to have any gliders remaining Sept. 2.

**BREWSTER IS DIFFICULT**—Sen. Brewster maintained his reputation for being "difficult" last week by blocking Senate action on legislation which would have covered a scheduled flow in the 1946 Airport Act in time to permit construction of large class four and class five airports during the current fiscal year. Brewster's objections prevented passage of the House-approved measure by unanimous consent. Sen. McCarran, the senator, will continue pushing for Senate passage before adjournment.

**CONNIE RENAISSANCE**—Despite the feeling in high Government circles that the Constitution might be grounded for as long as two or three months, it is expected in this case, unless opinion is that the big ship will be flying within 30 days after the close of the Reading hearing. Some modification will be ordered after the proceeding and the ship then must be "proved" for 100 flying hours after the modifications.

**GCA TO THE FORE**—Look for a "bump" in the current impulse on the radar Ground Control Approach landing system. GAA, while nominally giving GCA through 1950 at Indianapolis, is going ahead with introduction of its own radar automatic landing system. Now one of the major airlines is planning to obtain its own GCA equipment and put it in service on a test basis. The line's pilots, most of whom have used GCA, are enthusiastic about the development.

**BAILEY'S FUTURE ON TRANSPORT**—Defeat of the veteran Bureau Wheeler in Missouri's Democratic primary leaves Josiah Bailey of North Carolina in top chances for chairman of the powerful Committee on Interstate & Foreign Commerce which would be established in the next Congress under the House-approved Congressional reorganization bill. Wheeler, a staunch opponent of transport "integration," would thus head the committee which would have jurisdiction over all transportation and communication matters, now divided between the existing Senate Interstate Commerce Committee (domestic surface carriers) now under Wheeler, and Senate Commerce Committee (air, water and merchant marine) headed by Bailey. On the international air issue, Bailey has voted around the community company position but later endorsed the Administration's demand for regulated competition.

**NO ROCKY DEFENSE**—Although far ahead in experimentation with guided missiles, Army's Ordnance Department frankly admits it has found no defense for them and doesn't know how one could be devised. However, it has California Institute of Technology working on the problem.

**ATOMIC FLAME**—AAF's atomocraft last week that Packard Engine and Airplane Corp. was the primary contractor in a project seeking to utilize atomic energy for aircraft propulsion was forced by premature disclosure of a secret known within the industry for some time, informed sources do not expect results for a long, long time. For instance, a similar project for stationary power plants will not reach the "advanced" stage of construction for another two years. To express the search project at the moment looks impossible, but they are not discouraging eventual success. Most probable outcome will be an atom-powered pilotless missile, as no shielding material light enough for aviation use has yet been found to protect humans against radiation.

**TRANSPORT MERGER**—Absorption of Naval Air Transport Service by the Air Transport Command may be announced shortly. ATC flight crews say that the expansion of air terminal facilities at Fushfield Army Air Base near Sacramento, Calif., and the recent construction of all ATC West Coast-China operations there are indications of an early merger. They believe that the cream of NATS operational personnel will be retained in the combined operation. Final plans for the move already have been discussed in Washington.



## Non-Scheduled Clamor Stirs CAB to Ponder New Hearings

Board under new chairman on verge of further examination of problem in Fall to permit more presentations by new operators; comment deadline now Sept. 1.

By MERLIN MICKEL

Surrounded by clamor from the left, immediate non-scheduled air transport industry, the Civil Aeronautics Board—led by its new chairman—is on the verge of granting further hearing this Fall to re-examine the non-schedule picture.

Unaffiliated carriers who are winning from the Board's new definition of non-scheduled carriers and proposals to amend Economic Regulation 333.5 tightening restrictions on such operators thus may be given a chance to present evidence that could not be offered at earlier hearings because many of them were not then in existence.

**Board's Comment**—The Board is concerned with an industry that had grown from competitive infancy at the time of hearings in the non-schedule investigation, early last year into one of the major question marks in aviation.

Evidence of the Board's interest came in the modified disclosure—to be followed later by official announcement—that it was postponing, probably until Sept. 1, deadline for comment on the proposed amendment No. 3 to 333.1 (Aviation News, June 30).

The carriers were notified of the postponement in response to a resolution adopted a few days earlier at a meeting attended by representatives of the National Aeronautics Association, Aircraft Industries Association, Aeronautical Training Society, National Aviation Trades Association, and the small business director of the Dept. of Commerce.

An extension of 60 days was asked beyond the July 22 deadline previously set, but the office of CAB Chairman James M. Landis explained that this would put the date of further hearing too far in the future.

**Hearing in Month**—It appears that the hearing will start about a

month after the new deadline for comment, or around Oct. 1. That the Board is anxious to get the question settled is obvious from proposals by Board sources that final decisions will be rendered a month to six weeks after the hearing ends.

One comment at the Board was that there was too much pressure from Congress, the public and the industry to permit delay. Most communications from Capital Hill, however, were based on the misunderstanding that the proposed amendment was to take effect July 22, date on which comment was due. The operators complained that the suggested change would drive them out of business by establishing a low ceiling on flight frequencies and putting them in a

position where they could not continue their present operations legally without a certificate of convenience and necessity.

The situation confronting James M. Landis, who took office as CAB chairman June 18, a few days after the Board announced the proposed restrictions, was hard with controversy. Through Civil Aeronautics Administration regional offices, the Board was sending forms to the carriers to aid them in their registration. Data for registration was July 15, but due to the interests of the forms' availability there was difficulty that this data would be postponed, probably to Aug. 15. A Board spokesman said considerably latitude would be accorded the operators in meeting the deadline.

Board, Agency-industry people who noted the threat came away with the impression that it was eager to cut red tape and arrive at a clear picture of the whole situation as soon as possible.

The campaign continued, meanwhile, against the proposed restrictions in Omaha, Robert Sully, director of the Institute of Air Transportation, declared that proposed changes constituted a non-scheduled, charter and fixed base



BOMBERS FROM BRITAIN:

Welcomed in Mitchell Field, Long Island, these Lancaster bombers are part of the Royal Air Force Bomber Command's Squadrons 25 which is starting on a nationwide tour after release from its home station in England. Squadron 25, led on this tour by 22-year-old Wing Commander A. J. L. Craig, is one of the RAF's most famous units, dating from World War I, and having seen action in all major engagements since 1916. The Lancaster was the backbone of the RAF's long-range bombing force during the war. It is powered by four 1450 hp Merlin engines (Martin & Kuhn photo.)



### Power to stop a "Shooting Star"

When Lockheed's super-dart propelled P-80 Shooting Star "shoots" in for a high-speed landing, Goodyear's Self Adjusting Single Disc Brake takes over the task of bringing it to a safe, quick, retort-moment stop. This great brake is being specified on many of the world's newest aircraft because it affords greater landing power with less weight—because of its greater compactness—because it is this

plus to service a single, self-compensating mechanism keeps brake automatically adjusted in all cases. Landing takes only a few inches. Approved by the CAA for all types from light plane to super-jet. Specify it on your next order. Along with Goodyear tires, Aircoils, shock absorbers and floats. For engineering data write Goodyear, Aviation Products Division, Akron, O., Ohio or Los Angeles 34, California.



More aircraft land on Goodyear tires  
than on any other kind

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operations is such a serious threat to continued development of an service that it may well block the clock of the entire aviation world. Speaking in behalf of Lawrence J. Carr, IAT president, Kelly called for legislation to permit non-scheduled carriers to continue on a light basis (that is "black market" basis).

Comment by Ben Goodie, vice-president and counsel of Western Airlines, was that the proposed regulation would destroy the value of more than 500 airline-type aircraft, acquired in good faith by the non-scheduled operators, and would result in complete strangulation of competition with "the air transportation monopoly" which CAB has developed.

Waterman's comment further asserted that under the proposed amendment no person who has served in such aircraft could operate these with any hope of financial success, "notwithstanding the fact that the public demand for air transportation today far exceeds the will or the ability of the certificated air carriers to supply."

The suggestion was made that the amendment be modified to eliminate the non-scheduled classification and that routes on overseas operations be removed. It proposed that all carriers engaged directly in air transportation without mail pay be defined as "non-certificated." For these operators, Waterman suggested a maximum of 25 trips a month or 500 hours' total revenue flight time (whichever is the greater) between any two points.

The Board first announced it would study the non-scheduled situation in August, 1944. Hearings began before CAB continues the following March, after implementation. The chairman's report came out in August, 1946, and the Board's decision on Docket 1501, the non-scheduled investigation, was issued early last month.



**CANADA'S BID IN THE FLYING WING FIELD:**

The all-wooden two-place flying wing glider developed by Canada's National Aeronautics Council at Ottawa, is shown ready for flight tests at Edmonton.

## Air Travel Jam Waits TWA Probe Results

Seaside McCarran asks Congressional probe of air safety soon lines change passenger booking on foreign routes.

With the hearing on the Lockheed-built, TWA-down Canadian Airlines accident at Reading, Pa., scheduled to begin tomorrow in Reading, there was considerable doubt last week that the travel jam threatened by the grounding order (Aviation News, July 31) could be alleviated before the close of the hearing.

Only chance then, observers saw, was in the lifting of the order to permit the Constellation to resume service in the five airlines affected. At press time last week, the Army and Navy still had not made up their minds whether to release to the airlines the 45 C-54B's that had been requested by CAB at the suggestion of the Air Coordinating Committee.

Even should the service transports be turned over to the airlines, there is the possibility that major modifications would have to be made on them, involving the expenditure of considerable time and requiring several weeks. Emergency dump fuel valves would have to be installed. Lackland is confident that before the passage of the month, the Constellation will be back in service. Government sources, however, speculated that it might be two or three months, before the lifting of the ban.

Meanwhile, the lines were slowly catching up on the passenger backlog last week, although operations were still severely restricted. Still hindered, let was British Overseas Airways Corp. Although Lawrence's air now supplementing converted Liberators on the London-Mexico route, traffic is still limited to priority passengers, and there

was no prospect last week of BOAC's reentering New York until the Constellation's are put back in service.

Two other foreign air carriers hit by the "Conair" ban, are Panair do Brasil, which was operating three Constellations, and Air France, which France's first "Conair" arrived in France the day CAB imposed its flight ban. The planes were immediately diverted for further study.

Not awaiting the results of the official hearing, Lockheed, as well as TWA and BOAC, were conducting their own tests at Burbank and elsewhere. One of the most interesting studies being made by TWA is looking toward the development of a means to free the passenger cabin of smoke. This is the result of a theory reported last week that the Reading accident was the direct result of an attempt to let the smoke out of the passenger compartment with the result that it pushed into the pilot's cabin.

After checking the electrical systems of its Constellations, TWA last week began flying three aircraft back to U. S. stations under current flight rules and with an eight operator. Although CAB previously had granted permission for such flights, TWA delayed taking advantage of the privilege until it had made its own checks.

By last week the shot fired by David Schoenke, president of the Air Line Pilots Association at the Constellation had found its mark on Const 331. Sen. Pat McCarran (D-Nev.) proposed a Congressional investigation of air safety, got the proposition approved by the Commerce Committee and it now hangs on approval of funds by the Audit and Control Committee.

McCarran, one of the authors of the Act of 1940 which established an independent Air Safety Board, has never quite forgotten, nor forgiven the Executive Order which in 1940 abolished the Safety Board and

set up CAA and CAB. Last week he suggested that his proposed investigation may prove to the necessity for re-creating the Board.

## TWA Trio Appointed To Executive Posts

Goldborough now communications chief, Loomis and Koenig head Pacific maintenance base.

Three appointments to key positions on the TWA maintenance staff were announced last week.

Paul Goldborough, former president of Aeronautical Industries, Inc. and a captain in the naval reserve, was named director of communications under J. C. Franklin, TWA vice-president in charge of engineering and maintenance. Goldborough had four years' service with the Navy during the war and has been active in aviation since he was commissioned a naval aviator in 1917.

Robert C. Loomis, formerly director of base engineering, has been promoted to manager of engineering and overhaul for TWA's main maintenance base at Fowler County Airport, Kansas City, Mo., a former navy field has been with



R. C. Loomis L. R. Koenig

TWA since 1943 as an engineering pilot and was chief of engineering for TWA's International Division.

Louis R. Koenig succeeds Loomis as director of base engineering at the Fowler base. He was formerly with the AAF Technical Command at Wright Field and chief of the Training and Transport plane branch of the aircraft procurement section.

E. W. Radlock has been named to the newly created post of regional sales promotion manager. He has been with TWA since last September as a traffic representative.

Other industry personnel changes are:

► **Assistant**—Lee H. Smith has been named as executive vice-president South Island Airlines in 1943 as vice-president in charge of sales



### JAP ROCKETER:

Only rocket-powered fighter Nips were able to land during war in Shoshon, shown here displayed at Lockheed Air Terminal, Burbank. Intended for use by the Navy, might never get out into combat, although it did reach flight test stage. A reasonably close copy of German ME-109H model, Shoshon has aluminum alloy fuselage with 19-ft. length, 16-ft. wingspan, and 225-hp. powerplant using methanol and Argonine propellant as fuel. (Press Association photo.)

and has been on leave of absence with Fairchild as general manager of their Burlington, N. C., plant.

► **Pan-American**—Charles A. Hunsinger has been engaged as consultant on air traffic and sales. Admiral Paul H. Powell is now special representative in Madrid, Argentina, Uruguay and Paraguay.

► **TACA**—Fred L. Clark has been named assistant to the president. John B. Doran has been appointed

superior of advertising with headquarters in Miami.

► **Alaska Airlines**—B. B. Edwards, formerly a lieutenant commander in the NATS and general traffic manager for Mid-Continent, has been named to the post of general traffic representative.

► **HNA and Kasek**—Bert G. Goss, former director of public relations for the Aircraft Industries Association, has been named a partner.

## "Baker" Bomb Puts Fleet at Mercy of Attackers

(Radio from U.S. Appointments)

By SCHOLAR RANGS

Appallingly sudden leap of a recent brand model of gray-green water, followed immediately by a rolling, rolling "boom" of dense spray cloud which obliterated from view everything within a diameter of five miles—this was the blast of A-bomb No. 3.

It was apparent that even at low level a glider dropping its water-bomb would have ample opportunity to escape the blast effects. And such visual blinding of a ship by the given air attack following such a bomb burst.

Through the night, Army photo planes will take a series of flash-bomb photos to make a "ground-echo" record of progressive damage. The target area has been terribly devastated, and there is evidence that the ships were hurled violently from position. But the blast behavior failed to reach extreme forecasts of a 12,800 ft. spout and 300 ft. waves.

vulnerable to a flash-off action. Blast and wave will ride into the target center, with the coral reef intervention, the water shock arrived to reach the Appollonian as a matter of seconds. The ship shock is a rapid earthquake motion at a level of 30 ft. Then in one minute and ten seconds the sharp BLAST of the blast hit on the ship.

The shock and ship observer planes were low, and their results indicated our mental picture of a ship the given air attack following such a bomb burst.

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## Littlejohn Succeeds Gregory as WAA Chief

Mr. Gen. Robert M. Littlejohn last week succeeded Lt. Gen. R. B. Gregory as head of War Assets Administration and while no major changes in organization or personnel are expected, some personnel changes—chiefly in the administrator's personal assistants—may be in the offing.

While it is understood that Gen. Gregory did not personally select Gen. Littlejohn as his successor, his approval of the choice. Littlejohn, like Gregory, has been a quarter-master officer, serving Gen. Eisenhower during World War II as chief quarter-master of the European Theater of Operations.

An Gregory retained does the same—the four surplus property directorate is slightly more than a year—WAA tried up the record.

From lead for the company of 31,906 combat aircraft originally costing \$1,068,906,000. This virtually closes out WAA's stock of combat aircraft.

A total of 4,481 civil-type planes sold more than \$25 (date WAA was created), including 3,906 trainers, 871 transporters and 178 buses and other types. About 5,500 planes remain to be sold.

Consignment in WAA assets aircraft components and parts worth approximately costing more than \$40,000,000.

## Marin Profit \$901,878

Glen L. Martin Co. reported a backlog of \$115,000,000 in military commercial orders for 1948 and a net profit of \$901,878 after all charges for 1948. Gross sales during 1948 were \$18,487,107. The backlog includes orders for 331 twin-engine transports.



## JATO BOOSTS NAAS TAKEOFF

Using 12 extra rocket units in relay, Martin Philippine NAAS leaps off water at Alameda, Calif., in about 40 percent of time usually required. Giant cargo transport topped rocket at 70 gross tons for test. (Press Association photo)

## Wright Asks Action

CAA Administrator T. P. Wright last week asked CAA to review the circumstances surrounding the crash of the Model 40-51 Centurion, one of which was involved in the accident at Reading, Pa. Notice of the complaint was served on Lockheed and the various airlines that had been made the planes. They have 10 days in which to answer or under hearing. Details are expected, in which event the Board will set hearing date, pending which CAA may suspend the existing 30-day maximum another 30 days. CAA explained the action was a formally required by law which permits 30-day suspension pending CAA hearing, and added that it did not preclude continuation of an improved model or eventual replacement of the old certificate. CAA was to submit a list of required changes to Lockheed and the airlines by the end of the week.

## Pogue Heads NAA At Omaha Meeting

L. Wick Pogue, former chairman of CAA, has been elected president of the National Aeronautics Association, following that organization's first postwar national convention in Omaha. Pogue succeeds William B. Egan, who was named chairman of the board of directors. Other officers are: Fred Crawford, president of Thompson Products; Arthur H. Thompson, chairman of the Non-military Flying Advisory Committee; vice-presidents, Gordon Brown, vice-president of the

Business Trust Co., New York; treasurer, Mrs. James H. Bookbinder, secretary.

In one phase of recruitment of executive officers, Lowell H. Snowman, who has been NAA's executive, was elected executive vice-president. His functions will largely be what they have been in the past. In shifts in NAA's dramatic vice-president set-up, at New York, Lauder, Ky., replaces Robert C. Gentry, New York City, as vice president, while Gentry takes over private flying, formerly under William H. Stone, Truett Donovan, president of the Air Power League, succeeded Richard Palmer as vice president.

The election of Pogue, who is now an attorney in Washington, D. C., had been widely predicted before the convention. He had previously signified his willingness to serve if elected. Selection of Crawford, Brown and Snowman is significant as it broadens a plan first discussed in NAA to bring into the organization as a policy-making body leading representatives of interests both in and out of aviation.

Other activities of that plan were the election to the board of William Anderson, president of the National Association of State Aeronautics Officials; Gene Dornen, president of Aviation Associates; Harry Playfield, a founder of the Independent Airframe Association and a leading non-scheduled operator.

Other directors elected were: Stanley Draper, Oklahoma City; Dudley Dyer, Boston; Mrs. T. B. Egan, Boise, Idaho; La J. Robert Walker, Lubbock, Tex.; Harry Clark, Portland, Ore.

This still leaves a number of vacancies on the board, to be filled, presumably, by election of at least some representatives from non-scheduled organizations.

## Tigers Buy 202

National Savings Flight Corp. (First Tiger Line) is concluding negotiations to purchase 20 cargo versions of the Martin 202 from the Glenn L. Martin Co., Baltimore. This is the largest order to date for the cargo 202.

## Five Cent Air Mail

Postal Post Office & Post Roads Committee last week reported on legislation covering first class air-mail postage from eight cents on down to five cents. The measure has already been approved by the House.

## Navy's Twin-Jet Phantom Fighter Scores Success in Carrier Test

McDonnell XF2D-1 performance on *Franklin D. Roosevelt* seen as damper on future development of conventional powered carrier fighters.

First demonstration of the ability of an American Navy twin jet-propelled fighter to operate from a carrier at sea, last week scored several points for the McDonnell XF2D-1 Phantom and probably put a final damper on further development of conventional-powered navy carrier fighters.

Demonstrated clearly were two expected points of jet-propelled fighter superiority: much higher speeds, and rapid warming. Take-offs were made two minutes after engines started. The XF2D-1 also clearly showed it possessed good stability at relatively low speeds, that it could take a "bump" in its stride, and that it could become airborne in less than 400 ft.

**Five-Inch "Phantom"**—The first Phantom, powered by two Westinghouse 18-6 axial-flow turbo-jet engines, made five successful take-offs and landings aboard the *USS Franklin D. Roosevelt* 30 miles off the Virginia Capes.

The XF2D-1 consistently was airborne after runs of less than 400 ft., less than 40 percent of the usual take-off distance. The take-offs were made with the F2D-1 standing at 30 knots up to a 15 knot wind. Lt. Commander James Davidson was the test pilot.

It was disclosed, that the Navy Bureau of Aeronautics, piloted aircraft section, headed by Capt. C. A. Richardson, also has a number of other turbo-jet fighters under development, including the McDonnell XF2D-1, powered by considerably larger engines. Most than a dozen new planes, both Army and Navy, are now under development, which use Westinghouse designed axial-flow turbo-jet engines, including a new and more powerful engine now being tested.

**Ones for Two Groups**—While only the XF2D-1 prototype is presently flying, orders for two groups of Phantom fighters (approximately 50 planes) are now in process of construction at the Ft. Worth plant, with first deliveries scheduled early this fall. They will be powered with production Westinghouse 19-B engines, developing about 1900 hp, that also are being used early this fall. They will be powered with production Westinghouse 19-B engines, developing about 1900 hp, that also are being used early this fall. They will be powered with production Westinghouse 19-B engines, developing about 1900 hp, that also are being used early this fall. They will be powered with production Westinghouse 19-B engines, developing about 1900 hp, that also are being used early this fall.

Only about 1200 lbs. thrust from

each engine was used in the XF2D-1 carrier tests to keep the turbine temperatures within completely safe limits, although the engines are designed to operate up to 1300 lbs. The turbines are operated at 15 to 17,000 rpm in flight, with temperatures as high as 1900°F at the turbine section.

The plane drew at a weight of 3000 lbs. with fuel replaced after each flight to maintain as near constant weight as possible. Take-off machine was used, to eliminate need for a ground supply of fuel.

While the high-octane aviation gasoline which is standard carrier fuel has loaded and aromatic constituents which make it less desirable for longer periods of turbo-jet operation, there is little difference in performance, when it, or kerosene is used.

**Stability a Problem**—The principal problem of jet-type carrier fighter design is not one of short take-off distance but a problem of stability and control at low speeds. The Bureau of Aeronautics has performed extensive tests on the Bell P-59A Airacomet and the Lockheed P-80 Shooting Star and, although both are successful turbo-



The "Phantom" Graphic illustration of the high speed of the McDonnell XF2D-1 Phantom in this picture takes as it passed the flight deck of the carrier *Franklin D. Roosevelt* first week in the first take-off and landing made of a jet plane on a U. S. carrier. (Navy photo)

## Phantom Details

Specifications and limited data on performance were disclosed by the Navy for the McDonnell XF2D-1 Phantom, on the occasion of its recent take-off and landing demonstration aboard the carrier *U. S. S. Franklin D. Roosevelt*. They include:

Top speed... will over 500 mph.  
Range... 1,000 mi. per engine over 1,000 miles.  
Cruising... 27,000 ft.  
Full mission... 30 ft.  
Span (wings folded)... 30 ft.  
Length... 37 ft. 3 in. in.  
Height... 13 ft. 7 in. in.  
Full mission weight, slightly by less than 10,000 lbs.

jet design with the latter showing extremely high maximum speed at altitude, neither was programmed for carrier tests due to lack of satisfactory stability at speeds below 125 mph.

Comdr. Davidson, who was the first to test the Phantom, makes the fact that the Phantom possesses superior stability at low speeds and believes the lack of this quality has prevented carrier operations on the *Meister*. The British, however, made successful carrier tests as the *De Havilland Vampire* on December 3, 1944.

The probability of a jet fighter taking a "wave off" successfully was demonstrated when Comdr. Davidson was "waved off" the *FDR*



## PRIVATE FLYING

### Largest Sales Finance Group Enters Lightplane Market

Universal CIT Credit Corp. offers financing, insurance on hail and accidents and certification services in single package.

By WILLIAM KROGER

Extension of the nation's largest sales financing organization, Universal CIT (Commercial Investment Trust) Credit Corp. into the field of financing and covering lightplanes is regarded by the industry as a tribute to the stability and expected future of private flying, then as an immediate and direct stimulus to sales.

Thus feeling stems from CIT's background in sales financing of most commercial goods, placed against the relatively low sales figures in lightplanes up to this time. CIT is more than 30 years old, and has a proven success in extending financing. It has financed the purchase of more than 10,000,000 cars and has assets in excess of \$100,000,000.

**Wrap Up Package**—Wraggling up financing, insurance on hail and accidents, maintenance service and other features into one package, CIT for the first time makes it possible for a lightplane purchaser to get all these services from one company, at practically any place in the country. CIT has 350 branches.

All elements of CIT's plan, have been available to lightplane purchasers and dealers, nationwide but not in one package. Satisfaction of local financing organizations to meet local needs of dealers, and the complex requirements that must be satisfied by prospective purchasers, have encouraged widespread acceptance of the CIT plan.

The plan is automobile-type financing (one-third down and two years, 14 months or two years to sell) with one charge of five percent on the unpaid balance, and comprehensive insurance with premium based on a percentage of the selling price of the airplane.

**With Feature Packages**—CIT will finance the purchase of both new and used aircraft, for private or commercial use. The insurance premium ranges from 10 percent and 15 percent on new airplanes for private and commercial use re-

spectively, to 15 percent and 18 percent on used planes.

One big advantage is that charges are standardized, enabling the purchaser easily to figure his total payments and fees. This is illustrated by CIT for a new airplane for pleasure use as follows:

Initial order (including tax)	\$1,000
First advance	500
Total Cash Down (Max)	1,500
Total Cash Down (Min)	1,000
Total unpaid cash balance	1,000
Interest on unpaid cash balance	100
Total interest	100
Private accident and public liability	50
50 term	50
Total interest and public liability	100
Insurance and 10% down	1,000
Total cash down	1,100
10 unpaid balance	1,000

Package the most attractive feature of the plan is the insurance coverage which, overall, averages about three percent cheaper than prevailing rates. On ground risks, the purchaser has coverage for the full insured value against loss or damage by fire, theft, lightning and explosion. Windstorms, cyclones, tornado and other ground risks are subject to \$50 deductible.

**Flight, Crash Risks**—For flight and crash risks, only 18 percent of the insured value is deductible. For the risks ground above, the purchaser is insured for public liability up to \$100,000 for one person and up to \$200,000 for more than one person in each accident. Property damage has a limitation of \$10,000 for each accident.

CIT's coverage also provides a travel emergency certificate with which the purchaser can obtain medical anywhere for emergency repairs in replacement parts. The bill is paid by the nearest CIT office, and the amount is spread out over the remaining months of the purchaser's contract.

Also included are a hail bond certificate and the \$100 certification service under which the purchaser receives an identification card. In case of an accident, the insurance company will spend up to \$100 to notify friends or relatives.

The insurance is all placed with companies owned or controlled by CIT and, because of CIT's many branch offices, no agents are involved. Thus, it is felt, eventually will have an effect upon the established aviation insurance business which has been handled principally by local agents or brokers on behalf of the three or four large aviation insurance groups in the East. Whether, in self-defense, these groups will have to come up with financing proposals of their own is the big question mark.

**Other Airlines**—CIT's plan has been set up at just the right time. Recently the Federal Reserve Board announced its Regulation W which controlled financing of aircraft, among other things. It had limited the time for payment to 18 months and required one-third cash down after deducting any trade-in allowance. The amendment to all purposes from aircraft sales from Federal control, permitting financing for as long as 24 months.

The dealer in the key role is CIT's plan as he would handle all arrangements. CIT offers him "demonstrator financing." He can buy a stock of planes, paying only 10 percent in cash. CIT advances the remaining 90 percent at a rate of three percent per annum. The dealer agrees to repay the loan over a six months' period.



#### SEABEE'S AEROMASTER:

Standard equipment on the Republic Seabee 4-plane amphibian is the new adjustable pitch Aeromaster propeller, shown in pusher installation above on the amphibian. The prop blades are covered with plastic sheathing impervious to water, and have stainless steel leading edges. The Aeromaster is a product of Koppers Corp., Baltimore, making Aeromaster prop-

## Airport operator... Esso Marketers can help you!

This is straight business talk. As an airport operator you have the customers and facilities to sell our products. The more we can help you sell the better for us. And the more you sell, the more profit.

your airport will make. If you can use some really hard-hitting, productive sales help, read the facts of what Esso has done and is continuing to do for more than 500 certified aviation dealers.

### ADVERTISING that gets results!

- In national aviation magazines**—Every month, Esso runs full-page 2-color advertisements featuring Esso Aviation Dealers, their locations and airports. These ads are seen by millions of customers and prospects throughout the year!
- Competition in local newspaper advertising**—prepared by Esso who really know aviation, these ads will encourage people in your community to come out and fly at your airport. They will run in your community newspaper, over your airport signs, and Esso will appear both the end of space. In addition to providing the advertisement.
- Special aviation newspaper advertising**—run by Esso on someone of importance to everyone interested in flying. These ads hit hard on the quality of the products sold by Esso Aviation Dealers.



### MERCHANDISING AIDS



Informative booklets on flying and aviation products of interest to you and your customers: airplane booklets, tire maintenance, books on airport improvement and construction, moving planes and slide time, plus the Esso Sales Wings, a ready pulling device to save from Maine to Louisiana.

### SALES PROMOTION that really helps!

- Aircraft Lubricating Charts**—Detailed charts of over 30 different types of planes. A valuable working tool and a great help in selling necessary lubricants to customers.
- Windsocks**—that fly the Esso Esso Wings.
- Flight Certificates**—Already 140,000 of these have been distributed to private fliers—building up still more public understanding for Esso Aviation Products.
- Twenty-Four Hour Dispatches**—These pre-arranged which enable Esso to quickly fix time the 24-hour clock system.
- Technicians**—Long dealers in demand about changing product specifications, new products and topics of technical interest.
- Fliers' Cross-Country Map**—These growing Esso fliers maps could build still more good will for Esso Aviation Dealers and their products.



that fly the Esso Esso Wings.



### WHAT DEALERS SAY ABOUT ESSO...

"Esso men are on their toes — bringing me new ideas and new products and new sales appeals that help increase my business." "Esso distribution points are so well located my stocks are replenished quickly and often." "No words, shorter words." "One of the outstanding reasons we picked one Esso." "Esso has been exceptionally prompt and liberal in furnishing advertising aids and such items as lubrication charts, windsocks, computers, etc." "We get the high quality facts and literature under the Esso name."

For further information please write to Esso Aviation Department, 28 Broadway, New York 4, N.Y.







## Navigation Guide

Direct-Airplane Co., Burlington, Ind., has announced development of a new experimental guide for private pilots, which will be mounted on the instrument panel of the average two-place plane. The company reports that the device will enable the pilot to "have his finger" on a complete set of aeronautical charts of the U.S. without the necessity for carrying, unfolding and refolding bulky instruments. The device also is said to be capable of determining route lines and capture bearings by manual operation of its controls, and correction of errors will be indicated. That navigational bearings can be obtained with additional operation of controls. A sales program is now being developed.



## WIND TUNNEL MODEL

Wind tunnel testing for lightplane designs is expected to play a far more important role in future light plane engineering than it has in the past. NACA has been asked by CAA to make its tunnels available to lightplane companies for improvement of existing designs. Probably an even greater factor in increased future lightplane tunnel tests will be the entrance into the lightplane field of larger companies, which have been designing for many such aircraft over the years. The larger plane, above: A wind tunnel model of the Bob Dwyer, experimental two-place Lockheed-style plane, undergoing airflow investigations in a tunnel over wind tunnel facilities and being in final stages of flow (SAR Journal photo).

## Briefing For Private Flying

**POLICE SCHOOL**—Preparatory to a campaign for state police arrests of reckless and law flyers, Pennsylvania started today (July 30) a five-day air school for state police at Harrisburg. A day of demonstrations in how not to fly, will be included, with John W. McFarlane, state aeronautics supervising inspector conducting the flight demonstrations. CAA speakers, and William L. Anderson, state aeronautics director, will discuss violations and enforcement requirements.

**PERSONAL PROPERTY TAX**—Orange County, Fla., (Orlando) has set a personal property tax valuation of \$150,000 on planes in Orlando and expects to collect approximately \$120,000 in taxes on the planes this year. Private planes are being assessed at about \$1,000 each and taxed at approximately 3.55 cent. Planes are subject to tax in Florida for the first time this year as result of a ruling by the Attorney General that planes are motor vehicles and that subject to personal property tax.

**PROPOSER BALTIMORE HAM**—A City Council proposal in Baltimore for an airfield housing airplanes from flying over the city, has been promptly attacked by local aviation and civil interests, on the ground it is unconstitutional, and would discourage the city's progress in aviation. But it serves as an ominous warning to all aviation interests that local governmental units may go to extraordinary lengths to curb aviation by ordinance and regulation if the worse problem isn't settled promptly by the aviation people themselves. This involves, of course, two things: 1. Questioning the city's own plans to provide 400,000 necessary housing of home town and other traffic and other traffic, and 2. Questioning any student or private pilot who permits after warning, at his own airport without waiting for CAA to catch up with him. 3. A concerted effort on the part of most lightplane manufacturers to catch up with the few pioneers who have already done a good job of quieting their planes.

**VOYAGERS TO FOREST SERVICE**—A fleet of four Stinson Voyager 130 planes has been delivered to the U. S. Department of Agriculture for use by the U. S. Forestry Service as personnel transport and utility ships. The planes will carry four persons and cruise at 125 mph. With some of the characteristics of the warlike Stinson, they are expected to be used by the Forestry Service as personnel transport, and it is likely they may be used to drop fire-fighting paratroopers, and to supply firefighters by parachuting supplies.

**REDUCED FLYING SPEEDS**—Walter J. Janssen, Piper chief engineer, says that a reduction in present maximum flying speed would do more to enhance safety of the personal plane than any other single item. It would make possible use of plane under adverse weather conditions, with safety. It would make possible use of smaller airports with less need for takeoffs and landings. Airplanes making slow takeoffs would clear landing areas quickly, speeding traffic. Low speed on landing gear will be accomplished. Possibility of damage in emergency landings on rough fields will be diminished. Improved ground handling characteristics, so that the personal plane can taxi with safety at speeds up to 40 mph, a higher rate and angle of climb, are other good improvements in personal planes to be developed.

—Alexander Nickerson

## Monocoque Firm Charters For Commercial Flying

Possible revival of the Monocoque, one of the best-performing power personal planes, which has not been flying since the late 1930s, is seen in a new charter plan issued by the Florida Secretary of State to Monocoque Aeroplane Corp. of America, Orlando, Fla.

The charter authorizes the corporation to transport a commercial flight service for passengers,

freight, baggage, air mail and air cargo with authorized capacity of 100,000 hours of stock at \$18 per share, and 300 shares at no par value. While the limitation of the incorporation does not include possible future plans to revive the Monocoque, retention of the same indicates that the corporation might undertake the revival at a later date.

Incorporators are George W. Jackson, Addison L. Williams, L. B. Williams, R. B. Eldred, J. M. Latta, and R. H. Latta.

## FINANCIAL

## Aircraft Manufacturing Shares Undervalued According to Analysts

Survey classes airline stocks overvalued in relation to estimated earnings for next year; positions are detailed.

Airline shares, in general, appear to be overvalued in relation to estimated 1946-47 earnings. The aircraft manufacturing companies, on the other hand, continue undervalued on the same basis. This is the studied conclusion of "The Value Line," investment advisory service, in an analysis just released.

After noting poor first quarter earnings for most of the airlines, the "Value Line" anticipates a substantial improvement in net income for the second half of 1946.

The number of shares in domestic airlines is expected to be increased 1,480 compared to 422 at the 1945 year-end. Seating capacity is expected to triple. Load factors show signs of declining at the present time. Lower depreciation charges required by new airplanes are also expected to lower operating costs.

**Heavy Financing**—Compromise in terms of the heavy financing program to be assumed by the airlines. The equity structure or increase of senior securities and increased existing common shares is also noted.

Conservative concern is felt for possible overextended future demand, with the possibility that more planes might have been constructed for them economically. At the present time, there is more than enough business for transcontinental and overseas flights. Eventually, the investment service predicts, air travel must look profitable to the short-distance traveler, if revenues are to remain satisfactory.

Airports are overcrowded and are continually moving further from the cities they serve. Trips of 400 miles or less are simpler to take by rail than plane, the service contends, because of the added inconvenience of driving to and from the airports, and the overpayment toward a flight reservation due to weather.

To apply long distance flights, short haul "freder" traffic must be managed and handled.

criticism made subjective, in the opinion of the investment service. Unless this is done, it is believed that the tapering off of long distance travel may ultimately produce a sharp decline in earnings.

**Expensive New "Value Line"** concludes that the most 16 months will probably be a period of two-month expansion for the air transport companies. Yet earnings will be relatively small and most of the available profits will be ploughed back into expanding present routes and increasing equipment.

Capacities investments in airline stocks are estimated against most of them are fully valued on the basis of present earnings and those forecasted in 1947. The durable nature of the aircraft business is here enumerated.

**Order backlog** of the leading aircraft manufacturers are equal to the total output of several previous years.

**Dividend policies** have been extremely conservative. However, earnings have been conservatively stated after the large extraordinary outlay for recovery.

As a result of this policy, stock prices are undervalued. **Despite a sharp decline** in total volume from the wartime peak it appears likely that 1946-47 earnings will be solidly maintained. With the reduction in passenger traffic this year, net earnings are expected to hold well in the face of a sharp decline in sales.

Some companies, notably Douglas and United, are benefiting from the carry-back provisions of the excess profits tax law.

The following are "Value Line" comments on specific companies:

**American Airlines**—The dividend issue has overruled the admittedly bright future.

**Four American Airways**—Over the longer term, a consistent growth trend has been in evidence due to weather. To apply long distance flights, short haul "freder" traffic must be managed and handled.

**United Airlines**—Its stock is not

so speculatively priced as most others in the industry.

**North American**—The long term growth is strong.

**Boeing**—The company's participation in the growth of aircraft manufacturing in the future appears assured.

**Douglas**—The stock shows an exceptionally strong long-term growth trend.

**East Coast**—Over a period of years the stock shows pronounced growth characteristics.

**Continental**—The underestimation appears evident, especially in view of the estimated net working capital of about \$10,000,000.

**Blackhawk**—Postwar earnings are expected to approximate those of the last war years.

**Glenn L. Martin**—The stock is greatly undervalued in relation to estimated 1946-47 earnings.

**Spirit**—Long term growth, appreciation and yield are outstanding.

**United Aircraft**—In relation to earnings estimated for this year and next, the stock is greatly undervalued.

## New York Bank Analyses 1945 Corporate Earnings

In an authoritative analysis of corporate earnings, the National City Bank of New York presents an interesting comparison of individual stock prices for 1945 and 1944.

A group of 15 aircraft and parts companies for 1945 show aggregate sales of \$1,293,542,800 with a net income of \$12,446,500. Significantly, the percentage of net income to net worth was 13.2 for 1944 and 1945. This compares with the industrial manufacturing average of 3.9 percent for 1945 and 3.3 percent for 1944. Only the meat packing industry with a ratio of 25.4 for both years, reported at a lower profit margin than the aircraft business.

**Percentage Return**—Another measure, the percentage return on net worth, shows a group of 25 aircraft and parts companies as returning a profit of 25.6 percent in 1944 and 16.7 percent for 1945. Net income after taxes for these companies was \$46,963,900 in 1944 and \$54,435,000 in 1945 or a decline of 12 percent.

A total of 15 air transport companies surprisingly showed a decline to \$14,819,000 in net income, for 1945 from \$17,448,000 in 1944 or a drop of 19 percent. Nevertheless, the percentage return on net worth was 15.1 in 1944 and 12.2 in 1945.

## PRODUCTION

### Menasco Switches Main Effort To Gas Turbine, Jet Development

Linked with Lockheed on engine project and landing gear production; firm seeks to raise \$1,455,000.

Three years after it began to dabble in gas turbine and jet engine development, Menasco Manufacturing Co. last week had substantial orders for more than \$2,400,000 (Aviation News, July 22), more than one-fourth of its total backlog, and was seen as entering the first stage of a completed contract.

While the company during the war years had gone for the aid of its original role as an engine manufacturer—then its primary backing is daily for other products—its future to a large extent now is firmly tied to the gas turbine and jet engine and tied to the use of these engines by Lockheed.

Of more immediate interest to the company was its cash position. To raise a net of \$1,455,000, it offered stockholders warrants to buy 376,400 shares of new common stock at \$4.00 per share (a trifling of the market price). Any shares not subscribed by stockholders will be offered to the public but will be at a somewhat higher rate.

**Cash Requirement**—The immediate requirement for cash was principally \$835,000 in unsecured bank loans which have been returning working capital, with \$370,000 set aside for the first installment on Menasco's wartime plant which it now wants to purchase from the Government. Also, balance of the new financing will be poured into working capital.

Menasco has extended its no permanent intention of re-entering the propeller-driven engine field, in which it was active in the 1920-30s but came from its founding in 1924 until 1951. Even in the absence of that statement, the facts would indicate Menasco has gone too far down the jet path to turn back. In addition to the recent contract, AAF had previously put at least \$1,500,000 more into the company's expansion, and Menasco itself has lost about \$125,000 in the war. Another factor is Menasco's link with Lockheed.

The company started in a small way in gas turbine and jet work at the lab of Lockheed (whose president, Robert E. Grey, and vice president Cyril Chappell are substantial stockholders in Menasco and are on the board) on July 1, 1945. The initial agreement was that design and engineering would be done by Lockheed engineers and that Menasco would manufacture the parts.

**Agreement Changes**—This agreement has been changed twice as that now the former Lockheed engineers who originated the project are on the Menasco payroll, and Menasco is doing the entire job, but still as a subcontractor for Lockheed. Lockheed has an option to buy the first 250 engines produced by Menasco and there is some speculation that it is these engines that will be used in Lockheed's four Convettions, prototypes of which are now being completed for the Navy.



HUGHES BOAT TAKING SHAPE

The giant, eight-engine flying boat built by Howard Hughes' aircraft division is being assembled at a speed dock at Long Beach, Calif. When job is completed, each jet in front of dock will be removed and the ship floated into open water. (DPS photo.)

How far away such a development is is principally guesswork, although Menasco has stated that as of May 31 manufacture of the engine was 89 per cent completed.

Against that speculative future, Menasco has some solid present prospects. Its big item at the moment is a hydraulic landing gear unit, which it began making in 1949. It claims that in this field it now trails only the Cleveland Pneumatic Tool Co. and Bendix Aviation Corp. Its backlog of orders for landing gear units is now \$1,000,000, with 30 per cent from Lockheed and 20 per cent from Douglas. The spot in this priority is that Menasco admittedly has been infringing on a patent in making gas type of landing gear strut. It is now trying to ease out this situation, but if it were to be let for full liability it would cost about \$225,000, against \$100,000 worth of orders for the strut in question.

**Backlog Detailed**—Second largest item in Menasco's backlog are orders for the "Electric-Matic" portable washing machines, which total \$1,661,146. The company has made more than \$2,000 of these since January, but is involved by a variety of material shortages.

Nearly \$200,000 of the backlog represents orders for a third product, a hydraulic jack for automotive, selective, industrial and railroad use. And here, one of its principal competitors is Armstrong Co., a division of Lockheed.

To expand the backlog in these three products and whittle away at



### "War was never like this" ... says NC 730

"I had it up to the Army... Declared an officer, bought by Maryland Airlines, first of my type to be modified for commercial flight, given a new paint job... I went to work on July 20, 1945, on the Washington, D. C. Rebooth, Del., which... Made 7 round trips a day and 14,000 route miles in the first few days—some with weather a dock wouldn't like!... The 300-hour checks come every 7 days... Have run more than 3,500 hours, 415,000 route miles since August... War was never like this!"

"NC 730 with Jacobs R-755-B engine is a great conversion," says James E. Ryan, Vice-President of Maryland Airlines, now to command Washington, D.C., Baltimore and New York City.

Together with three other Jacobs R-755-Bs, the first of its kind, these Jacobs-powered transports travelled more than a million miles in less than a year—with only routine engine overhauls and overhaul... For absolute dependability, top performance, operating economy, and easy, low cost maintenance—no one can find an engine better suited to small transport requirements than the Jacobs."

Such a record requires no elaboration... And now available in the improved version of the R-755-B... the Jacobs R-755-B which delivers 25% more power with no increase in weight, consumes even less fuel and oil per hp hour! Other new Jacobs engines... with many valuable innovations, designed to meet current and future transportation requirements, built with basic stresses that assure continued high performance, dependability and economy... are well worth waiting for!... Jacobs Aircraft Engine Company, Division of Republic Industries, Inc.



**JACOBS**  
Division of Republic Industries, Inc.

• Pottstown, Pa.



a 18 month's test that by April of this year had secured to more than \$700,000—without incident, a new high for the fiscal year that ended June 30—was the job of John C. Lee who took over as president in Sept., 1964. Robert R. Miller, who has been executive vice president since 1962, and the 1,000-plus Ministry employees.

## Pressure Chamber Will House Aircraft

Building a two-year war, North American Aviation, Inc., has recovered and started using a 75-ton hydrostatic altitude chamber, both for research and development of aircraft components and equipment, and capable of reproducing tropical hurricanes or Arctic blizzards.

Inside the huge steel cylinder, 32 ft. long and 17 ft. in diameter, researchers can create almost any climatic conditions, between 100-degree extremes of 115 degrees F., and minus 80 degrees. Humidity can also be controlled from dewpoint to fog, rain, snow and sleet. Air densities at sea level and up to 60,000 ft. can be simulated.

The great size of the test chamber permits the entire fuselage of a fighter, or large segments of transports or bombers, to be placed inside for functional tests of entire systems. The chamber is mated with wire models of the aircraft and is closed by a 12 ft. 21-ton counter-balanced door containing

an auxiliary altitude chamber or air lock which can be used independently without refrigeration for physiological work.

The "giving room" is equipped with six observation windows and eight access ports along the walls and is contained from an instrument room at the side.

North American estimates the cost of testing a fighter plane in the chamber at \$30 an hour, compared with \$300 to \$1,000 for actual flight tests.

An altitude chamber of a different type is now in use at Chance Vought Aircraft division of United Aircraft Corp., the company has disclosed. This chamber of two chambers, one above the other, with testing conducted in the lower. The upper cylinder is a cold air reservoir with cooling coils and fans for blowing air down into the test space.

## Canada Is Seeking Air Export Markets

Canadian converting DC-8s for foreign sales 25V, surplus planes sold outside country.

Thoroughly schooled in the methods and benefits of foreign trade—it was undertaken only by the U.S. during the war—and bolstered by a steady stream of surplus aircraft, Canada is now out to carve a piece of the aircraft export market.

Before the war, Canada was an exporter of all types of aircraft. During the war she expanded old factories, built new ones. Loomed to use the aircraft producing facilities for transportation, defense and military development by a small population among other factors, Canada is looking outward for the means to keep its aviation industry plant alive.

Pending the manufacture of new planes for sale, an easy side the export field is being made with surplus aircraft. The extent of the effort is shown by figures: as of the first of the month, Canada's War Assets Corp. had sold a total of 1,539 surplus planes. More than one-fourth, 355, have been sold outside Canada. The export figure, however, is not as necessarily final, as Canadian companies are converting craft ultimately destined for export.

Canadian Converting Co., Canadian, for instance, has either completed or has in progress conversion of 10 DC-4s for foreign customer. Halford, 33; Newport, 37; Bristol, seven, Belfast, four; Anglo,

three; Venema, three; Franco, also, Montreal, one, and two from U.S. airlines. The Canadian price is \$130,000 per plane.

Surplus aircraft sold outside Canada include Army Avian biplanes, transports which were used as bombers, and composite training planes during the war. These have been going mainly to airline operators in Central and South American countries. Strayer Inc., Montreal, reports, have been sold for Caribbean cargo service. Canair PRV-5A amphibians have gone to air companies in South America and to the Netherlands government for its navy.

Some lighter planes such as Cessna Cruisers have also been sold to private individuals or operators in the United States. Latest list shows a couple of Mosquitos sold to a Canadian company operating a West Indian transport service.

As far as new planes are concerned, the government's Canadian Ltd., at Montreal, has a license to manufacture DC-4s and DC-6s powered with Rolls-Royce Merlin engines for its own airline, and is also allowed under its contract to sell aircraft to Great Britain and other parts of the British commonwealth. This is a long term arrangement for the plant will be kept for some years with production for TCA and the DCAP.

Hamilton, Ontario, Canadian Car & Foundry Ltd., Montreal, has built a prototype of the Burnelli CRV-2 flying wing, primarily for use in Central and South America, and which is not yet in production, company is developing for export markets with the Russian and Norwegian, and which it now makes as well. The Norwegians, designed for Canadian bush operations, is considered suitable for fighting.

With an eye to exports, presently at Alaska, Lake Bruntz, pioneer Canadian bush field, is concentrating at Northwest Industries, Edmonton, Bellanca aircraft under license, for sale in and outside Canada.

At Toronto the English firm, A. V. Roe, will manufacture T-61 transports for the North American market in the plant that built Lancaster and Liberator bombers during the war. It will also build jet and gas turbine engines for Canadian and export markets. De Havilland Aircraft of Canada, Toronto, is building T-61 four-plane aircraft for sale to airlines in the Canadian market, but also to EU orders from the parent company in Great Britain.

## Lightplane Makers Plan Mass Methods

Dispersal of production facilities is major trend in industry, sub-contracting increases

In their efforts to fulfil present demands, and work toward attainment of a mass market, the light-plane manufacturing industry is moving rapidly toward adopting techniques proved successful in other mass consumer products, particularly the automotive industry. One revealing trend in this direction is a continuing dispersal of production facilities which in the end simplifies distribution problems and decreases costs by putting final assembly closer to ultimate markets. Latest development in this direction is the naming of home by Piper Aircraft Corp., Lake Haven, Pa., for a site at Jones City, Ohio.

**New Piper Plant.**—The new Piper plant will be at the former Ford School of Aeronautics, an aircraft built during the war as a training base for British Royal Air Force flyers. Handled by the company, Piper representative who signed a contract with the city commission, stated the new plant will employ about 1,000 persons.

Piper is the second large light-plane manufacturer in recent weeks to open Oklahoma as the site of an auxiliary plant. Taylorcraft Aircraft Corp., Alliance, Ohio, announcing previously that it was negotiating for the purchase of a plant at Tulsa. Taylorcraft would also like an additional plant in California (Aviation News, July 1).

Development of subsidiary plants, manufacturing and more to come upon their own, rather than upon leased, supply system, is manifest throughout the lightplane industry. Aerostar Aircraft Corp., Middletown, Ohio, said its first assembly plant, located at Cleveland, Ohio, about 30 miles away. Aerostar also has subcontracted work to Curtiss-Wright Corp.'s Columbus plant.

**Carton Makes Parts.**—For Aerostar, C-W is manufacturing the main body, door, wheel pants, instrument panel, seats and channels. These parts are trucked daily to the two Aerostar plants.

Piper has begun what is believed to be another innovation by using its own aircraft to assist in the flow of some scarce supply items. Some of the items so delivered are small hardware such as screws, and instruments, particularly the tach-



STENSON SOUND-PROOFING

One of the best soundproofing jobs in lightplanes is accomplished at the Stenson Aircraft Co. by using Fiberglas sheets made as shown here. The material adds less than three lb. weight to the airplane. A Fiberglas pad also covers the metal floor at the front of the cabin, and Fiberglas is glued to the back of interior panels.

ometer, which have been in short supply for several months.

In a Piper Cub, parts from a supplier in Michigan may be brought in to Lake Haven in four hours. The fastest machine restoration might take three or four days before the shipment reaches the plant.

While Piper officials concede this is not the most economic way to have material shipped, they point out that the cost is negligible when it comes against a loss of about \$110-150 if production is closed down for two days for lack of parts.

## WAA Authorizing Direct Sales of Aeronautical Tools

War Assets Administration has authorized certain agencies to make direct sales of special aeronautical tooling to private individuals in the construction who operated the plants in wartime.

This problem was acute right after the end of the war, with the industry particularly anxious to get tooling applicable to, for example, construction of transports. War Assets' predecessor agency, however, stated that the tools were part of the plant and had to be sold with the plant. If the purchaser would not exercise his option to acquire the plant, he couldn't get the tooling.

By one device or another, however, the industry managed to get the bulk of equipment necessary. The present action of WAA, which completely eliminates the problem which has been vexing as important for some time.

## New SAE Manual

Chaired to be the first coordinated effort toward standardizing standardized drafted practices in the aircraft industry, the Society of Automotive Engineers has published an "Aeronautical Drafting Room Manual." The manual is the result of an SAE committee which was formed more than a year ago and has been headed by Otto F. Kuchner of American Airlines. It was prepared by 14 leading aeronautical engineers. The committee will continue to function to keep the manual abreast of developments in jet propulsion, air turbines and rocket power.

## Maxon Buys Firm

W. L. Maxion Corp., New York City, manufacturers of ovens for use on planes in preparing Maxion foods, has bought the Victor Electric Products Inc., of Channahon, Ohio. One of prime objectives of the acquisition was to assure a supply of fractional horsepower motors for Maxion's ovens.

**Crewer Inside.** Entrance to North American Aviation, Inc.'s new hydrostatic altitude chamber with its 21-ton, 22-ft. door that can act as an auxiliary chamber or as an air lock. Inside the test chamber, temperature ranges between 115 degrees F. and minus 80 degrees can be obtained.



## Now, TACA comes to North America

The CAB has just granted a foreign air carrier permit to TACA de Colombia . . . between Bogota and Miami . . . via Jamaica and Cuba. Schedules to be announced later.

TACA AIRWAYS AGENCY, INC.  
MIAMI — NEW YORK — WASHINGTON, D. C.



TACA AIRWAYS System



TACA serves the Americas

Announcement of this new route means that an inter-American partnership, successfully operating for 15 years in Central and South America and the Caribbean, now becomes tangibly and truly inter-American in scope by expansion northward into the United States. TACA Airways now offers a time-savings, low-fare, low-cost service to your doorstep. The beautiful lands of our neighbor may be reached within a few hours. The best way for neighbors to become good neighbors is simply by visiting one another. To help you do that, with the ease and convenience of TACA, the facilities of Latin America's greatest airline system, TACA, are at your service.

*John H. Hines*  
President

## SPECIAL AIR SERVICES

CHARTER NON-SCHEDULED INTRASTATE

### Miami Non-Scheduled Operators Organize to Combat Restrictions

Contract Air Carriers Association formed for battle against CAB rules and airport discrimination; charge excessive fees.

Twenty non-scheduled airlines in the Miami area have incorporated the Contract Air Carriers Association with the immediate two-fold purpose of combating restrictive regulation by CAB and obtaining equal rights with established carriers at Miami International Airport.

A delegation from the group already has spent more than a week in Washington where it is cooperating with representatives of the Military Pilot's Association in bringing its case against CAB policies to the attention of Congress, the Executive Department, and high-ranking Army and Navy officials. Special effort has been made to gain the ear of influential members of the Senate's Senate Bureau and Commerce Committees and the House Interstate and Foreign Commerce Committee.

**Ask Participation**—CACA is asking postponement of CAB's proposed Amendment No. 3 of Section 282.1 of the Economic Regulations until October 1961. Investigation of non-scheduled air services as requested and requested. The group contends that imposition of the restrictions in Amendment No. 3 cannot be justified until sufficient facts and hearings can be had to determine the economic value of non-scheduled carriers.

In a strictly local dispute with Miami's Dade County Port Authority, CACA asserts the charter lines are paying two-thirds of the International Airport's operating costs while the four established carriers—PAA, National, Eastern and Delta—are receiving favored treatment. Profits now being piled up by the port authority largely through high rates imposed on non-scheduled and foreign carriers will enable the authority to turn a surplus back to the established airlines through reduced charges in the next fiscal year, CACA states.

Among the airport fees paid by non-scheduled operators which CACA wants reduced are charges of

75 cents for each passenger taking off, \$1 for each passenger landing, \$1 a ton for freight, 55 cents per passenger for baggage handling, 90 cents a square foot for wooden hangar space and up to \$25.50 for each landing.

**Yardell President**—President of CACA is John N. Yardell, non-president of Universal Airlines, Inc., vice-president is Charles A. Carroll, president of American Air Export and Import Co. (owns C-47s) and Caribbean American Lines (two C-47s and three on order), a partial CACA membership list includes:

**Other Members**—Stelovene Air Transport Service, Inc., Robert Stelovene, pres. (two C-47s); Trans-Tropic Airlines, Inc., Roger Cusick, pres. (three C-47s); International Air Transport Co., Walter Stensell, pres. (three C-47s and two Lockheed L-1049s); Skyline, Inc., Lee Herold, pres. (three C-47s); Curbside Airways, Inc., Arturo Masada, pres. (two C-47s and two C-54s); Continental Air Transport Co., Inc., A. Mahler, pres. (two C-47s and two C-54s); Argonaut Airways, George Koshen, pres. (one C-47); Puerto Rico Air Transport Co., Inc., Jose Jimenez, pres. (five C-47s); Denson Powelson, sole proprietorship, (five C-47s).

**Other industry developments.**—Walter Stensell, Inc., of Fort Worth, Texas, is operating a flight from Miami Air, during April, May and June new two round trip packages

San Juan-Miami-New York operations, carrying both passengers and freight. Much of the cargo is lost (heavy material and various fabrics which can be flown to San Juan, made into the finished product, and flown back at a saving in production costs because of the sharp wage differential between New York and Puerto Rico).

In addition to Universal Airlines (four C-47s and two Lockheed), American Air Export and Import Co. (owns C-47s) and Caribbean American Lines (two C-47s and three on order), a partial CACA membership list includes:

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**Miami Carriers Organization** formed to handle local and national problems affecting non-scheduled airlines in the Miami area, the Contract Air Carriers Association had 26 members at the time of its incorporation this month. With David Chait, counsel for the organization (seated), are, left to right, J. B. Hines, secretary, William Hines, treasurer; John N. Yardell, president; and Charles A. Carroll, vice-president and chairman of the executive committee.





## Fairy-tale come true

"This is my stage carpet that takes me high in the sky. I can see the whole world... cities and harbors, lakes and villages!"

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The Stratocruiser's unsurpassed speed, comfort and reliability will soon be available on these forward-flying airlines—Pan American World Airways, Swedish International

Airlines, Northwest Airlines, American Overseas Airlines—for which Boeing is building fleets of these supertransports

## Airlines Study CAB Overseas Mail Rate

75 cent per mile fee proposed for Trans-Atlantic air mail, as shown on new revised weighable basis.

During the 10-day period allowed for written answers, TWA, American Overseas Airlines, and Pan American Airlines will study CAB's three-rate system of last week, proposing a temporary rate of 75 cents per mile for Transatlantic air mail. Probably none of the three will protest the rate. The order would permit them to collect back pay for months of service since the war and give them continuous revenue, without prejudice to determination of a "permanent" rate, which will be retroactive to the date service began.

When in New York—in among these orders the Board moves to place U. S. overseas mail pay on a weight-mile basis, so it did in setting 48 cents per ton-mile on the "big four" domestic last year.

The weight-mile basis is part of a long-term effort by CAB to separate the cost of air mail handling and transport service from

passenger service. The only equitable means of paying mail via transport, and of figuring mail pay as a subsidy when necessary, is the Board's opinion, is separation of costs and charges.

As a basis for separating air mail cost, CAB has adopted investment and operating cost of U. S. ton-mile mail service in addition to ton-miles in all non-mail services. From the beginning, CAB will evolve a formula for paying overseas mail carriers on a strictly "service" basis. In cases where "load" values are necessary, actual service cost will still be known.

Back Pay—AGA, and PAL in the Atlantic, got \$159 per ton-mile back pay for services during 1944, when equipment was scarce, volume small, and many non-recurring costs were met.

Pan American in the Pacific gets a temporary rate of 65 cents compared with 75 cents for the other four operators, in recognition of longer flights, higher loads, and less passenger potential, which add up to higher costs.

CAB places the three overseas carriers, and others who will come in later, under tight pressure for efficiency by publicly comparing

their investments, costs, and service. By this means, and by giving them equal temporary mail pay, it seems also to put them in a position of co-equality.

Cost-Plus Order—Under no circumstances will CAB's final rate be determined on a cost-plus basis. This means that when plus payments are necessary, the figures behind them will be revealed.

For the first time in the history of close observers, CAB threw back at operators the estimates they had made at hearings on their applications. The Board told all three it will consider, at face value, the cost and earnings estimates they presented at the North Atlantic case hearings—estimates not easily refuted to day.

## Eastern Airlines Crash Stirs New Fire Guards

Extensive new safeguards against transport plane fires similar to that which caused the crash of an Eastern Airlines jetliner last week, the U. S. C. last Sept. 7 will be made part of the Civil Air Regulations in the near future, according to CAB.

Urgency of additional regulations against fires in flight has been pointed up by public and Congressional concern over the recent Constellation accidents at Wickenburg, Conn., and Reading, Pa. While the new regulations will stem from previous investigations and proposals circulated to the industry some time ago, elsewhere below the latent crashes may stir the provisions and enforce the laws while the airlines will have to comply.

Reporting on the EAL accident, which killed 15 passengers and three crew members, CAB found that the probable cause was fire of undetermined origin in the rear cargo compartment or lavatory which prevented the pilot from maintaining altitude long enough to effect a landing.

The investigation of this accident and previous records of fire in flight caused the Board to conclude that:

- 1) All DC-3 passenger equipment is not provided with adequate access to the baggage compartment from the cabin.
- 2) Maximum safety in flight requires the installation of fire detecting equipment in the cargo compartments.
- 3) Use of paper lunch and lavatory accessories likely contribute to a fire hazard.
- 4) Further emphasis must be placed in aircraft design on the



## AA AT TULSA:

All types of maintenance except engine overhaul will be handled at American Airlines' new maintenance depot at Tulsa, Okla., municipal airport. Much of the four bays, site of a former government modification plant, has 15,000 sq. ft. of floor space. Officials estimate that within two years 3,200 to 4,000 men and women will be working at the depot, which now employs more than 200.







## Miami's Bumbling Port Authority

Disorganization and double-paid politicians are strangling aviation in Miami and rendering not only local, but-paying aviation industries but the suffering public as well. This is an area in aviation people throughout the country who are hearing from coast to coast how Miami is becoming the horrible example of political mismanagement and extortion. But few national or even local publications have probed the truth about Miami. Other than on the subject not covered in the Special Air Service section of today's News.

Last Feb. the legislature pushed through the Port Authority Law, creating a group of politicians, appointed from county commissions, who have complete control in their name over all harbor and waterway shipping, airports, streets, airplane bases, hotel bus operators, shops, and other aviation activities.

Members of city, county, Port Authority know nothing about aviation; they pointed out that say some key who did might be biased. Actually, that is the Miami attitude on aviation in a nutshell. Commercial aviation must be organized and favored. Aviation must be black, not tagged for aviation. Each member of the Authority receives an added pay check for his services on the Authority, as well as pay from the Commission. And a port director was added to the payroll, too.

With these bumbling expenses, it was no great surprise to see an elaborate and expensive for nothing set up by the Authority. From the private operator they assumed a greater role, plus a revenue by a governmental agency of the field and facilities. This is an addition to the annual business tax on inventory, equipment, and the like, although some operators long ago paid the required fees, as outstations as private have not been noted by the Authority.

The 36th St. Airport was acquired for the county from the American Airways, 22.5 acres and land located fees ranging from \$9.50 per plane to \$17.50 plus a charge for each airplane and seating passenger. All in addition to rental charges for office, hangar, and counter space at an airport with facilities so inadequate it has no fire fighting or crash equipment, except an untrained unit operated by the Army for its own property.

Traffic conditions are beyond comprehension. Some Army activity is continuing. Railroad tracks cross a runway, where a train once left a strip bus air use and a landing transport pilot barely air in it. There is a road into the airport, and the air traffic control tower built for PAA's traffic 10 years ago, passenger aircraft must turn back and make uncontrolled services at an interim while waiting planes, move through sluggish customs and immigration, or try to get service in a third-rate restaurant. But the Port Authority completely ignores these serious factors like the one recently pointing itself on the back for the severe it brought down visitors to the pay facilities.

Greater Miami, through no effort of the politicians, has more air bases than most cities. Miami itself has none. Significantly, only private buses, Dade County has 14 commercial airports, more county, eight private. There are four airplane bases: Coast Guard, three private. All of the facilities are inadequate.

Five new fields are contemplated, two to be built and owned by the county, all existing fields to be owned by the state—Dade 13 to 28 miles from downtown.

Miami News has sufficient hangar space or other facilities.

Private arrangements are eager to improve facilities. So far their efforts have been hampered by the Port Authority, which has not only a "never stop" plan which would put county controlled airports in the best locations.

One operator even bought property, and moved construction materials to the site and was blocked by the Authority. It hastily "disappeared" the location. Yet shortly afterward the county bought a tract within two miles and has already started what its commissioners describe as an airport for the private flyer, in open competition with other struggling operators. Private pilots pay two cents a square foot may lie down on that landing strip, if they land their own planes, and have a parking for heavy cars.

Aviation News months ago sounded opposition of wealthy Miamiites to a million dollar would airport project between Miami and Miami Beach, with a 3,600-ft. strip, ramp, hangar, a yacht base, and hangar for 200 planes. The local city fathers refused to remove the area, and a court fight is on.

Another aviation enterprise, long established in Miami, is compelled to operate on borrowed space. One of its fields is now likely to be taken back by the U.S. Air Force. The other field, "only" 30 acres from Miami, was formerly used by the Army. It is now subject to the whims of the county politicians, who refuse from one day to the next to give any guarantee of future policy. The operator naturally is not able to sign an agreement under such conditions.

The same operator controls a complete base on Miami property, ignoring Miami. The base was created as of July 1 and within six months will require any alternate location for that operator, despite the hundreds of miles of other franchises in the area. That gives government the only well-served area in the country, with its thousands of registered service to the public. The Coast Guard base at Dwyer Key is under consideration for a private base, but the base is open to some expansion of water and is not suitable for small planes unless a beachhead is built.

The other complete base is near Miami, but controlled by the state, and is inadequate. It cannot service any one without hauling out. It is adjacent to the main ship channel into Miami Harbor and is dangerous for state and navigation.

The creation of the airlines, the private operator and aircraft base, and plane service in Miami are multiple, and the outlook remains as dismal as the nearby overgrown jet lot in Miami aviation is described by a ring of politicians without a thought in the world for private service.

The only possible bright spot is the recent appointment by the state of an aviation supervisor, whose duties are to promote and develop air facilities. It can be an important job and William C. Serrano, coadjutor pilot, will have the aviation support of government interests in fighting the dilatory tactics of the Miami group. He will receive his training to the governor and he will have a pretty story to tell. We hope the report is made public. Miami aviation should be, and demand that aviation be given the opportunity to grow like any other industry.

RONALD H. WOOD

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